

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P231169

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231169
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-70-D-U-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9944 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

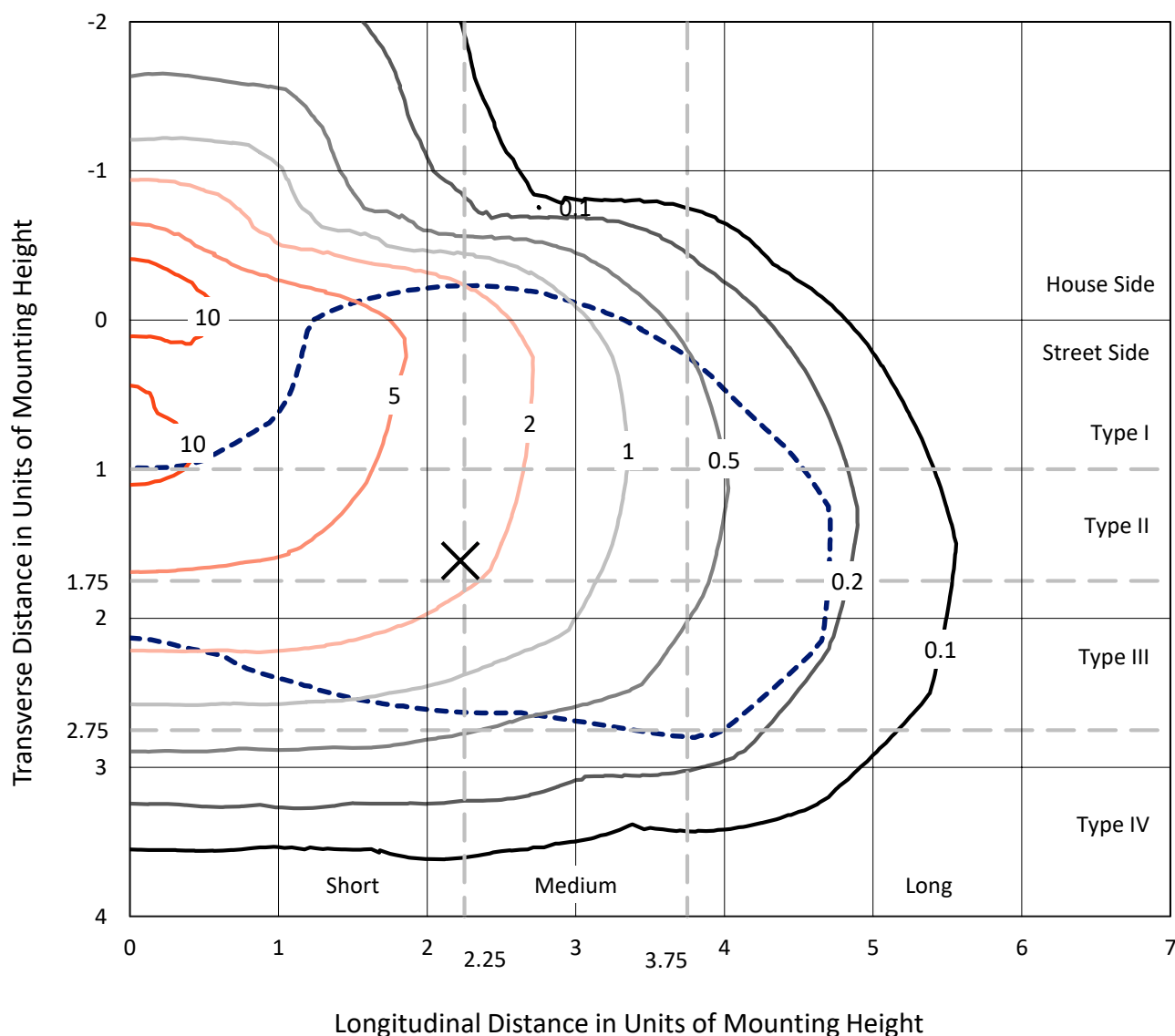


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

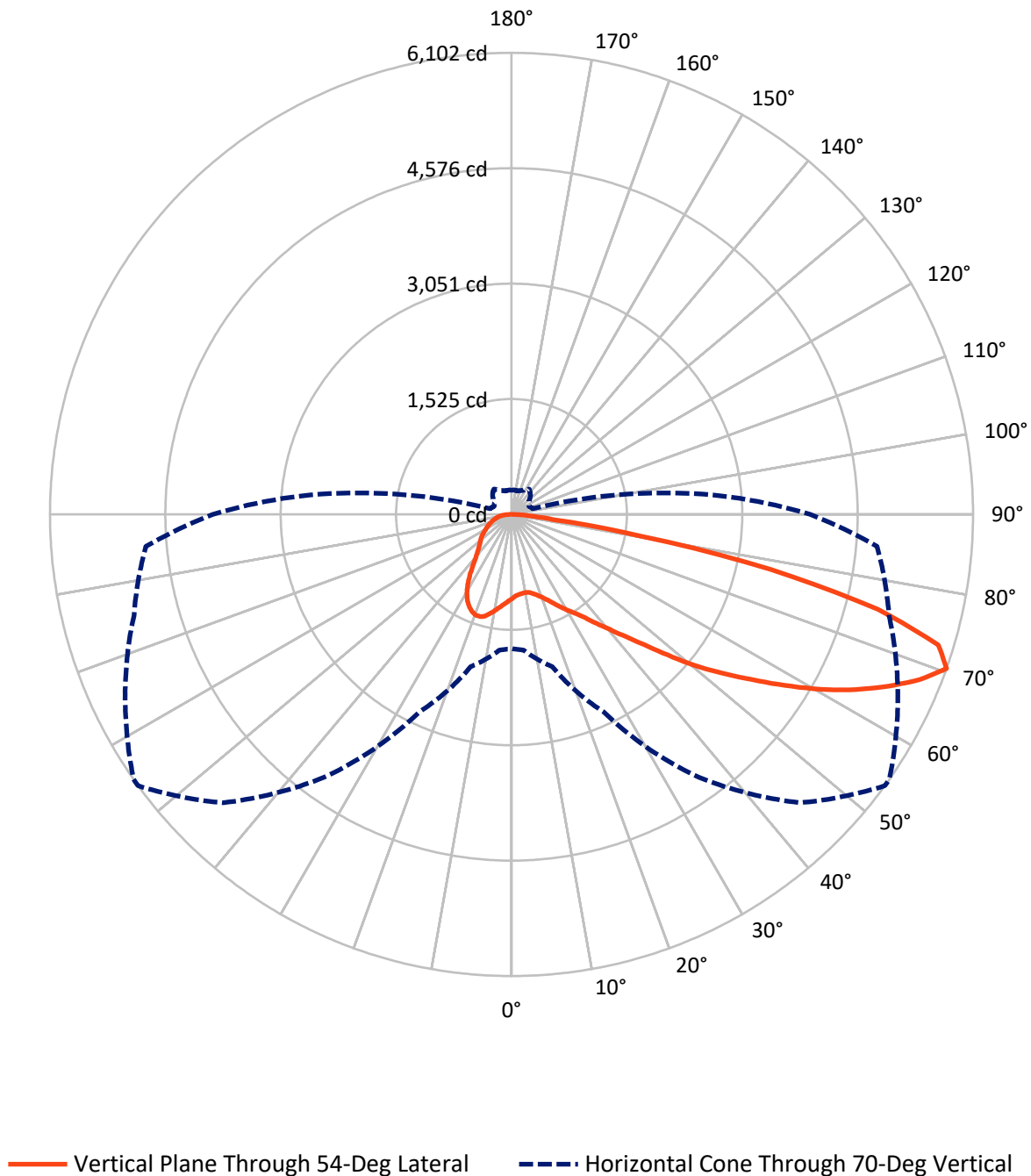


Based on 10 foot mounting height. Maximum calculated value = 12.9 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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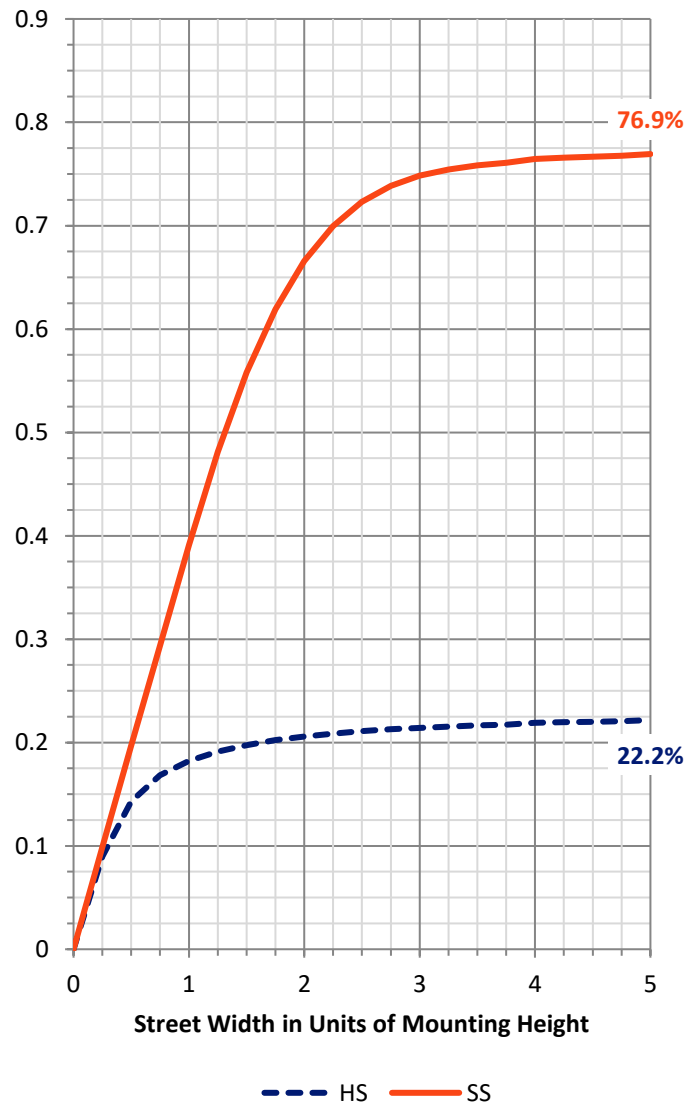
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2255.3	0.0	2255.3
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	7688.7	0.0	7688.7
	% Fixture	77.3	0.0	77.3
Total	Lumens	9944.0	0.0	9944.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	1.1
10°-20°	348.9	3.5
20°-30°	606.1	6.1
30°-40°	885.7	8.9
40°-50°	1390.1	14.0
50°-60°	2137.7	21.5
60°-70°	2611.8	26.3
70°-80°	1619.3	16.3
80°-90°	235.2	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	9944.0	100.0
0°-180°	9944.0	100.0

Coefficient of Utilization



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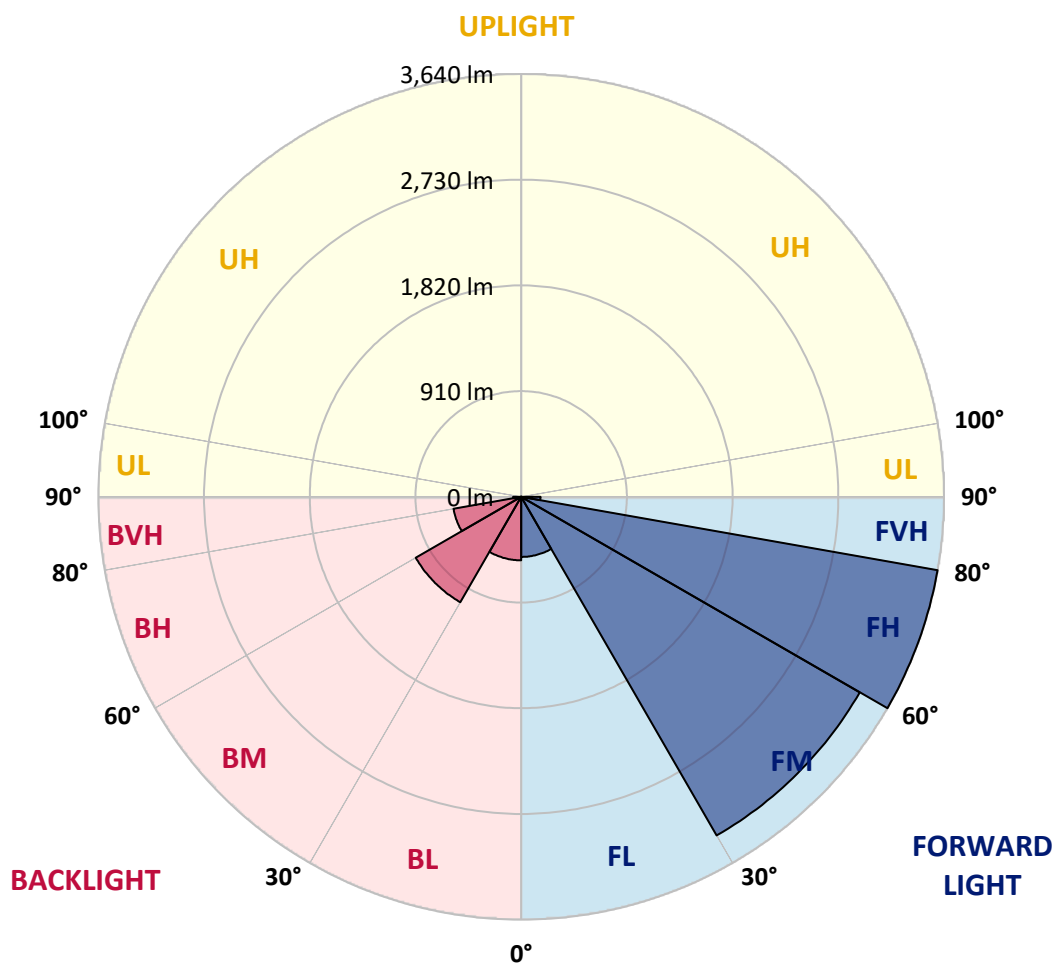
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	517.4	5.2			
FM	(30°-60°)	3365.6	33.8			
FH	(60°-80°)	3639.7	36.6			G2/5000
FVH	(80°-90°)	166.1	1.7			G2/225
BL	(0°-30°)	546.8	5.5	B2/1000		
BM	(30°-60°)	1048.0	10.5	B2/2500		
BH	(60°-80°)	591.4	5.9	B2/1000		G2/1000
BVH	(80°-90°)	69.1	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5
2.5°	1068.8	1065.2	1065.2	1070.7	1072.5	1077.9	1077.9	1079.8	1085.2	1094.3	1105.2
5°	1036.1	1034.2	1036.1	1043.3	1047.0	1057.9	1061.5	1063.4	1074.3	1088.9	1105.2
7.5°	1003.3	1001.5	1005.1	1016.0	1027.0	1043.3	1052.4	1054.3	1070.7	1090.7	1112.5
10°	992.4	990.5	996.0	1005.1	1016.0	1034.2	1048.8	1050.6	1074.3	1098.0	1128.9
12.5°	1006.9	1005.1	1010.6	1019.7	1030.6	1043.3	1059.7	1061.5	1092.5	1123.5	1156.2
15°	1043.3	1043.3	1045.2	1050.6	1061.5	1072.5	1087.0	1088.9	1121.6	1158.1	1190.8
17.5°	1099.8	1096.1	1096.1	1094.3	1101.6	1107.1	1125.3	1127.1	1161.7	1194.5	1227.2
20°	1169.0	1167.2	1159.9	1150.8	1148.9	1152.6	1170.8	1172.6	1207.2	1234.5	1265.5
22.5°	1252.7	1254.6	1238.2	1218.1	1209.0	1214.5	1230.9	1232.7	1258.2	1281.9	1309.2
25°	1363.8	1358.3	1334.7	1305.5	1287.3	1287.3	1303.7	1303.7	1327.4	1342.0	1360.2
27.5°	1469.4	1458.5	1436.6	1394.8	1365.6	1371.1	1387.5	1387.5	1409.3	1414.8	1423.9
30°	1584.1	1573.2	1545.9	1493.1	1454.9	1451.2	1471.2	1469.4	1498.6	1496.7	1489.4
32.5°	1724.3	1718.9	1673.4	1606.0	1555.0	1542.3	1560.5	1562.3	1580.5	1575.0	1551.4
35°	1921.0	1919.2	1877.3	1758.9	1691.6	1667.9	1678.8	1678.8	1691.6	1677.0	1636.9
37.5°	2168.6	2172.3	2135.8	1961.0	1866.4	1826.3	1828.1	1826.3	1829.9	1813.6	1771.7
40°	2416.3	2425.4	2423.5	2212.3	2092.1	2023.0	1997.5	1993.8	2002.9	1995.6	1955.6
42.5°	2742.2	2764.0	2713.1	2521.9	2387.1	2270.6	2201.4	2192.3	2212.3	2221.4	2183.2
45°	3080.9	3073.6	2993.5	2855.1	2733.1	2583.8	2452.7	2438.1	2452.7	2480.0	2439.9
47.5°	3257.5	3252.0	3232.0	3162.8	3144.6	2973.4	2775.0	2762.2	2734.9	2773.1	2725.8
50°	3548.8	3554.3	3472.3	3465.1	3541.5	3446.8	3139.1	3110.0	3060.8	3091.8	3051.7
52.5°	3760.0	3736.4	3685.4	3749.1	3987.6	3936.7	3481.4	3468.7	3423.2	3415.9	3397.7
55°	3845.6	3845.6	3854.7	4002.2	4342.7	4275.3	3852.9	3865.6	3803.7	3752.7	3776.4
57.5°	3871.1	3882.0	3960.3	4204.3	4759.7	4539.4	4262.6	4280.8	4191.6	4089.6	4164.3
60°	3745.5	3778.2	3965.8	4319.0	4994.6	4819.8	4694.1	4699.6	4570.3	4421.0	4552.1
62.5°	3423.2	3463.2	3798.3	4366.4	4956.3	5107.5	5102.0	5114.7	4938.1	4752.4	4916.3
65°	3028.1	3068.1	3425.0	4233.5	4927.2	5313.2	5475.3	5509.9	5282.3	5032.8	5143.9
67.5°	2447.2	2500.0	2838.7	3785.5	4785.2	5482.5	5824.9	5861.3	5548.1	5178.5	5123.8
70°	1773.5	1799.0	2083.0	2876.9	4206.1	5389.7	6101.6	6099.8	5635.5	5167.5	4850.7
72.5°	854.0	874.0	1119.8	1786.2	3008.0	4573.9	5901.3	5935.9	5515.3	5009.1	4226.2
75°	351.4	371.5	453.4	753.8	1578.7	3022.6	5001.8	5083.8	5009.1	4495.7	3306.6
77.5°	218.5	225.8	265.8	389.7	721.1	1411.2	3501.5	3612.5	3969.4	3601.6	2183.2
80°	163.9	169.3	198.5	273.1	455.2	520.8	1738.9	1879.1	2405.3	2066.7	988.7
82.5°	136.6	138.4	158.4	198.5	309.5	298.6	557.2	620.9	1121.6	788.4	340.5
85°	127.5	131.1	142.0	142.0	196.7	187.5	231.2	242.2	325.9	269.5	118.4
87.5°	65.6	61.9	125.6	111.1	102.0	91.0	98.3	105.6	122.0	129.3	52.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5	1112.5
2.5°	1108.9	1114.4	1123.5	1132.6	1143.5	1156.2	1163.5	1172.6	1179.9	1176.3	1174.4
5°	1114.4	1123.5	1143.5	1161.7	1183.5	1209.0	1225.4	1243.6	1258.2	1261.8	1256.4
7.5°	1123.5	1139.8	1167.2	1199.9	1229.1	1261.8	1287.3	1312.8	1331.0	1334.7	1334.7
10°	1145.3	1163.5	1199.9	1243.6	1278.2	1312.8	1342.0	1362.0	1378.4	1385.7	1385.7
12.5°	1176.3	1198.1	1241.8	1294.6	1332.9	1365.6	1382.0	1391.1	1398.4	1405.7	1407.5
15°	1212.7	1236.3	1289.2	1345.6	1385.7	1402.0	1402.0	1400.2	1400.2	1403.9	1407.5
17.5°	1249.1	1274.6	1329.2	1389.3	1414.8	1405.7	1392.9	1387.5	1383.8	1382.0	1387.5
20°	1287.3	1312.8	1367.5	1423.9	1416.6	1378.4	1360.2	1347.4	1336.5	1331.0	1338.3
22.5°	1329.2	1352.9	1409.3	1447.6	1392.9	1334.7	1300.1	1280.0	1261.8	1250.9	1258.2
25°	1378.4	1402.0	1456.7	1454.9	1351.1	1269.1	1214.5	1181.7	1161.7	1150.8	1150.8
27.5°	1436.6	1456.7	1509.5	1436.6	1292.8	1181.7	1101.6	1070.7	1065.2	1056.1	1056.1
30°	1496.7	1513.1	1558.6	1394.8	1212.7	1067.0	979.6	965.0	966.9	957.8	959.6
32.5°	1558.6	1575.0	1587.8	1332.9	1108.9	937.7	879.5	868.5	866.7	859.4	852.2
35°	1646.0	1669.7	1591.4	1249.1	983.3	830.3	788.4	777.5	766.6	741.1	741.1
37.5°	1779.0	1804.5	1582.3	1145.3	854.0	746.5	708.3	693.7	675.5	650.0	640.9
40°	1961.0	1961.0	1562.3	1028.8	750.2	679.2	642.8	624.5	604.5	579.0	573.6
42.5°	2175.9	2124.9	1531.3	910.4	673.7	633.7	600.9	580.8	557.2	528.0	524.4
45°	2427.2	2288.8	1487.6	804.8	617.3	606.3	586.3	551.7	511.7	480.7	475.2
47.5°	2671.2	2436.3	1445.7	730.2	569.9	595.4	579.0	520.8	466.1	422.4	417.0
50°	2938.8	2567.4	1396.6	668.2	533.5	588.1	569.9	475.2	415.2	384.2	380.6
52.5°	3206.5	2700.3	1343.8	602.7	502.6	573.6	548.1	442.5	413.3	371.5	366.0
55°	3488.7	2855.1	1281.9	529.9	466.1	544.4	518.9	440.6	426.1	371.5	358.7
57.5°	3763.7	3026.2	1181.7	458.9	426.1	500.7	508.0	429.7	398.8	367.8	353.2
60°	4067.8	3208.3	1016.0	398.8	391.5	464.3	493.4	406.0	367.8	356.9	349.6
62.5°	4311.7	3372.2	793.9	356.9	362.3	435.2	475.2	391.5	355.1	346.0	344.1
65°	4417.4	3375.8	569.9	320.5	333.2	407.9	457.0	378.7	344.1	340.5	338.7
67.5°	4306.3	3190.1	400.6	285.9	302.3	382.4	433.4	366.0	333.2	335.0	331.4
70°	3947.6	2798.6	293.2	253.1	273.1	355.1	407.9	349.6	320.5	324.1	318.6
72.5°	3303.0	2181.4	234.9	225.8	249.5	325.9	382.4	331.4	300.4	302.3	291.3
75°	2439.9	1445.7	196.7	202.1	222.1	298.6	349.6	307.7	278.6	271.3	264.0
77.5°	1451.2	742.9	162.1	176.6	198.5	265.8	313.2	278.6	254.9	242.2	236.7
80°	599.1	300.4	132.9	149.3	173.0	236.7	276.8	244.0	227.6	214.9	207.6
82.5°	238.5	147.5	105.6	122.0	145.7	205.8	242.2	214.9	198.5	189.4	169.3
85°	91.0	72.8	71.0	85.6	109.3	158.4	200.3	180.3	167.5	143.8	138.4
87.5°	36.4	32.8	32.8	41.9	61.9	100.1	143.8	125.6	131.1	103.8	105.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)